

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-28. (Canceled)

29. (Currently Amended) A lumen occlusion device, said device comprising:

a plug defining a plurality of openings, the plug being configured and dimensioned to substantially completely occlude flow through a the lumen, the plug having an outer surface in which a plurality of openings are formed, wherein the openings are spaced from one another and have a shape suitable for allowing flow of a biological bonding agent therethrough;

a delivery instrument detachably coupled to the plug for delivering moving the plug to a selected location in the lumen, wherein, during delivery of the plug to the selected location, the plug enters the lumen before the delivery instrument enters the lumen; and

an access catheter positioned within the delivery instrument for delivering the a biological bonding agent to for being moved through the openings;

wherein, upon delivery of the biological bonding agent to the openings by the access catheter, the plurality of openings are generally arranged to allow the biological bonding agent to extrude through the plurality of openings to the interior wall of the lumen for to bind[[ing]] the plug to an the interior wall of the lumen.

30. (Original) The lumen occlusion device of claim 29, wherein the bonding agent comprises a biphasic material.

31. (Original) The lumen occlusion device of claim 29, wherein the bonding agent comprises a biosorbable material.

32. (Original) The lumen occlusion device of claim 30, wherein the biphasic material is biosorbable.

33. (Original) The lumen occlusion device of claim 29, wherein the bonding agent is a shape memory material.

34. (Currently Amended) A method of occluding a body lumen, the method comprising the steps of:

providing a device comprising a plugging means adapted for substantially completely occluding flow through a the body lumen and a delivery means, wherein the plugging means has a plurality of openings an outer surface in which a plurality of openings are formed, wherein the openings are spaced from one another and have a shape suitable for allowing flow of a biphasic material therethrough generally arranged to allow a biphasic material to extrude through the plurality of openings to the interior wall of the lumen for binding the plugging means to the an interior wall of the lumen, and wherein the delivery means is detachably coupled to the plugging means;

inserting said device into the body lumen with the plugging means entering the lumen before the delivery means enters the lumen first;

advancing said device through said body lumen to a target site;

injecting the biphasic material into the delivery means and conveying the biphasic material to the plugging means, thereby enabling said biphasic material to flow through the openings to fix said plugging means relative to the interior wall of said body lumen;

moving said biphasic material through the openings of said plugging means to fix said plugging means relative to the interior wall of said body lumen;

detaching the delivery means from said plugging means; and

withdrawing said delivery means from said body lumen, leaving said plugging means inside said body lumen.

35. (Original) The method of claim 34, wherein the biphasic material comprises a biosorbable material.

36. (Original) The method of claim 34, wherein the biphasic material is a shape memory material.

37. (Original) The method of claim 36, wherein the biphasic material is biosorbable.

38. (Currently Amended) A lumen occlusion device, said device comprising:

a plug defining a plurality of openings, the plug being configured and dimensioned to occlude flow through a the lumen, the plug having an outer surface in which a plurality of openings are formed, wherein the openings are spaced from one another and have a shape suitable for allowing flow of a biological bonding agent therethrough;

a delivery instrument detachably coupled to the plug for delivering moving the plug to a selected location in the lumen, wherein, during delivery of the plug to the selected location, the plug enters the lumen before the delivery instrument enters the lumen; and

an access catheter positioned within the delivery instrument for delivering the a biological bonding agent to for being moved through the openings;
wherein, upon delivery of the biological bonding agent to the openings by the access catheter, the plurality of openings are generally arranged to allow the biological bonding agent to extrudes through the plurality of openings to the interior wall of the lumen for to bind[[ing]] the plug to an the interior wall of the lumen.